

FILE 'CAPLUS' ENTERED AT 17:13:34 ON 02 JUN 2008

L1 125 S "FATTY ACID NITRILE" OR "FATTY ACID DERIVED NITRILE" OR "FATT
L2 203263 S AMIDE OR "STRONG ACID"
L3 20 S L1 AND L2
L4 3 S US200!-534156/APPS
L5 1 S L3 AND L4
L6 19 S L3 NOT L5

=> d 15 bib abs

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:453151 CAPLUS <<LOGINID::20080602>>
DN 141:25327
TI Purification-decolorization treatment for fatty nitriles for the removal
of long-chain carboxamides
IN Telschow, Jeffrey Earl
PA Akzo Nobel N.V., Neth.
SO PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004046067	A2	20040603	WO 2003-EP12834	20031113
	WO 2004046067	A3	20040722		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU	2003299293	A1	20040615	AU 2003-299293	20031113
EP	1560808	A2	20050810	EP 2003-799464	20031113
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR	2003016217	A	20050927	BR 2003-16217	20031113
CN	1711238	A	20051221	CN 2003-80103357	20031113
JP	2006506429	T	20060223	JP 2004-552623	20031113
US	20060030726	A1	20060209	US 2005-534156	20050505 <--
IN	2005CN00906	A	20070810	IN 2005-CN906	20050512
MX	2005PA05155	A	20050722	MX 2005-PA5155	20050513
PRAI	US 2002-426537P	P	20021115		
	WO 2003-EP12834	W	20031113		

AB A process for the removal of impurities comprising amides, but which may include other impurities such as amines, from a solution of the fatty acid nitriles and impurities is described in which the impure nitrile is contacted with a strong acid to remove the amide as a salt in the acid layer. The thus-treated nitrile is then subjected to phase separation and treated with an adsorbent (e.g., bentonite clay).

=> d 16 tot bib abs

L6 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:208232 CAPLUS <<LOGINID::20080602>>

DN 134:239307
 TI Method for producing fatty acid amides by the reaction of fatty acid esters with ammonia
 IN Gutsche, Bernhard; Sicre, Christophe; Armengaud, Rene; Rigal, Jean; Wollmann, Gerhard
 PA Cognis Deutschland G.m.b.H., Germany
 SO PCT Int. Appl., 19 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001019781	A1	20010322	WO 2000-EP8724	20000907
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19944418	A1	20010322	DE 1999-19944418	19990916
	EP 1212290	A1	20020612	EP 2000-974367	20000907
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	JP 2003509402	T	20030311	JP 2001-523362	20000907
PRAI	DE 1999-19944418	A	19990916		
	WO 2000-EP8724	W	20000907		
AB	Fatty acid amides are prepared from fatty acid alkyl esters and ammonia in the presence of a catalyst and in this method, substantially water and fatty acid-free esters are used and the catalyst is a compound of tetravalent tin (e.g., dibutyltin oxide) that is soluble in the reaction mixture. The method is carried out at low pressure, with short reaction times and to a large extent, without the formation of byproducts.				
RE.CNT	2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L6 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1992:20690 CAPLUS <<LOGINID::20080602>>
 DN 116:20690
 OREF 116:3643a,3646a
 TI Method for manufacturing fatty acid nitriles and glycerin by ammonolysis of glycerides with alcohol scrubbing
 IN Miesiac, Ireneusz; Szymanowski, Jan; Jerzykiewicz, Wojciech; Gebura, Jaroslaw
 PA Politechnika Poznanska, Pol.; Instytut Ciekkiej Syntezy Organicznej "Blachownia"
 SO Pol., 10 pp. Abstracted and indexed from the unexamined application.
 CODEN: POXXA7
 DT Patent
 LA Polish
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	PL 153523	B1	19910430	PL 1987-269513	19871215
PRAI	PL 1987-269513		19871215		
AB	Fatty nitriles and glycerin (I) are prepared by ammonolysis of glycerides (especially natural fats and oils) with NH ₃ (g) and a catalyst at 220-300°, whereby the reaction aerosol is absorbed by a polar organic solvent (especially a lower aliphatic alc.) optionally containing ≤80% (vs. total weight) nonpolar solvent. Distillation of solvent from the condensate gives				

a crude product which is separated into a nitrile phase and an aqueous I phase. Separation may involve neutralization or acidification with CO₂ or SO₂. Thus, 100 g beef tallow was heated with 2 g Zn dodecylbenzenesulfonate under

NH3(g) at 50 dm3/h for 3 h with the exit gases being scrubbed by MeOH containing 10% benzene. Evaporation of solvent from the condensate gave 92 g crude

product as an emulsion, which was broken by 4 g NaCl to give 83% nitrile fraction (containing 7.3% amide) and 13 g aqueous I containing 53.7% I. Addition of CO2 and SO2 to the emulsion also gave separation

L6 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:156506 CAPLUS <<LOGINID::20080602>>

DN 110:156506

OREF 110:25883a,25886a

TI Process for the manufacture of glycerin and fatty acid
-derived nitriles from the reaction of glycerides with
excess ammonia

IN Stuehler, Herbert; Fischer, Kurt

PA Hoechst A.-G., Fed. Rep. Ger.

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3639857	A1	19880601	DE 1986-3639857	19861121
	IN 168556	A1	19910427	IN 1987-CA820	19871021
	EP 273173	A2	19880706	EP 1987-116921	19871117
	EP 273173	A3	19880720		
	EP 273173	B1	19910703		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	AT 64922	T	19910715	AT 1987-116921	19871117
	DD 262859	A5	19881214	DD 1987-309214	19871119
	US 4801730	A	19890131	US 1987-122403	19871119
	DK 8706106	A	19880522	DK 1987-6106	19871120
	NO 8704853	A	19880524	NO 1987-4853	19871120
	NO 165394	B	19901029		
	NO 165394	C	19910206		
	AU 8781449	A	19880526	AU 1987-81449	19871120
	AU 598881	B2	19900705		
	CN 87107926	A	19880601	CN 1987-107926	19871120
	CN 1014605	B	19911106		
	JP 63150235	A	19880622	JP 1987-292242	19871120
	BR 8706262	A	19880628	BR 1987-6262	19871120
	ZA 8708694	A	19880831	ZA 1987-8694	19871120
	SU 1551243	A3	19900315	SU 1987-4203696	19871120
	IL 84547	A	19920216	IL 1987-84547	19871120
	CA 1305182	C	19920714	CA 1987-552315	19871120
PRAI	DE 1986-3639857	A	19861121		
	EP 1987-116921	A	19871117		

AB Fatty acid-derived nitriles and
glycerin are prepared by the reaction of glycerides with 200 L NH3/kg
glyceride-h at 220-230° in the presence of a specialized catalyst,
producing a reaction mixture containing water, glycerin, fatty acids, fatty
acid
amides, and fatty acid-derived
nitriles. The glycerin and water are removed and the carboxylic
acids and derivs. recycled and reacted with 5-150 L NH3 at
240-320°, producing fatty acid-derived
nitriles of high purity.

L6 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1986:209168 CAPLUS <<LOGINID::20080602>>

DN 104:209168
OREF 104:33157a,33160a
TI Separation of amides from nitriles
IN Frank, Dieter; Metcalfe, Lincoln D.; Park, John Y. G.
PA Akzona Inc., USA
SO U.S., 13 pp.
CODEN: USXXAM

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4575434	A	19860311	US 1984-656083	19840928
	EP 177097	A1	19860409	EP 1985-201535	19850925
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	NO 8503820	A	19860401	NO 1985-3820	19850927
	AU 8547982	A	19860410	AU 1985-47982	19850927
	ES 547371	A1	19860601	ES 1985-547371	19850927
	JP 61126063	A	19860613	JP 1985-212737	19850927
	BR 8504757	A	19860722	BR 1985-4757	19850927
	CA 1260495	A1	19890926	CA 1985-491786	19850927
PRAI	US 1984-656083	A	19840928		

OS MARPAT 104:209168

AB Impurities comprising amides are removed from fatty acid-derived nitriles by contacting a solution of the nitriles and impurities with a layered mineral, comprising an Al silicate containing exchangeable cations, and an acid such as H₂SO₄ which protonates the amides and forms an insol. salt with the exchange cations, followed by separation of the nitriles from the mixture, especially with a rotary drum vacuum filter. The water content in the reaction mixture is ≤0.5%. Thus, 550 lb. tallow nitrile having amide content 0.38% and Gardner color 5.5 was treated in a stirred reactor at 60°/74 mm with 7% Ca bentonite (12% H₂O content) and 0.7% H₂SO₄, agitated 30 min, and filtered with a rotary drum vacuum filter at 200 mm. The first filtrate was agitated with 2% fresh neutral clay at 60° for 20 min and vacuum filtered. The purified tallow nitrile was a clear liquid having Gardner color <1, no bad odor, and amide content 0.1%.

L6 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1980:221693 CAPLUS <<LOGINID::20080602>>

DN 92:221693

OREF 92:35779a,35782a

TI Prediction of liquid-liquid equilibria for ternary systems by the ASOG method

AU Tochigi, Katsumi; Hiraga, Mayumi; Kojima, Kazuo

CS Dep. Ind. Chem., Nihon Univ., Tokyo, 101, Japan

SO Journal of Chemical Engineering of Japan (1980), 13(2), 159-62

CODEN: JCEJAQ; ISSN: 0021-9592

DT Journal

LA English

AB Liquid-liquid equilibrium were predicted for 31 ternary systems (25-40°) by using the ASOG (Anal. Solns. of Groups) method to predict activity coeffs. Results for systems containing hydrocarbons, H₂O, alcs., ketones, esters, fatty acids, nitriles, and amides showed that the ASOG approach has the advantage of simplicity.

L6 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1979:594935 CAPLUS <<LOGINID::20080602>>

DN 91:194935

OREF 91:31399a,31402a

TI Fatty acid nitriles and glycerin from
glycerides from natural fats and oils
IN Billenstein, Siegfried; Kukla, Bruno; Stuehler, Herbert
PA Hoechst A.-G., Fed. Rep. Ger.
SO Ger. Offen., 11 pp. Addn. to Ger. Offen. 2,737,607.
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2813204	A1	19791004	DE 1978-2813204	19780325
	ES 472553	A1	19790216	ES 1978-472553	19780814
	IN 150312	A1	19820911	IN 1978-CA889	19780814
	RO 77028	A1	19810622	RO 1978-94982	19780815
	EP 916	A1	19790307	EP 1978-100666	19780816
	EP 916	B1	19810520		
	R: BE, CH, DE, FR, GB, LU, NL, SE				
	DD 138311	A5	19791024	DD 1978-207321	19780816
	FI 7802516	A	19790221	FI 1978-2516	19780817
	FI 63961	B	19830531		
	FI 63961	C	19830912		
	JP 54041806	A	19790403	JP 1978-99578	19780817
	JP 62046530	B	19871002		
	DK 7803679	A	19790221	DK 1978-3679	19780818
	DK 159064	B	19900827		
	DK 159064	C	19910121		
	NO 7802821	A	19790221	NO 1978-2821	19780818
	NO 147271	B	19821129		
	NO 147271	C	19830316		
	BR 7805331	A	19790424	BR 1978-5331	19780818
	AU 7839076	A	19800221	AU 1978-39076	19780818
	AU 519437	B2	19811203		
	AT 7806007	A	19800515	AT 1978-6007	19780818
	AT 359991	B	19801210		
	CS 202509	B2	19810130	CS 1978-5425	19780818
	IL 55385	A	19820228	IL 1978-55385	19780818
	HU 22921	A2	19820728	HU 1978-HO2097	19780818
	HU 180472	B	19830328		
	SU 971092	A3	19821030	SU 1978-2650552	19780818
	CA 1135722	A1	19821116	CA 1978-309619	19780818
	PL 119196	B1	19811231	PL 1978-209133	19780819
	US 4234509	A	19801118	US 1979-32753	19790424
PRAI	DE 1977-2737607	A	19770820		
	DE 1978-2813204	A	19780325		
	US 1978-933955	A2	19780815		

AB In the manufacture of fatty nitriles from glycerides (e.g., tallow) and NH₃, the fatty nitrile phase is separated from the glycerol (I) [56-81-5] and treated with NH₃ to convert the small amts. of amides and acids in the nitrile phase to nitriles, giving nitriles with high purity. Thus, 500 g tallow containing 2% Zn dodecylbenzenesulfonate was treated with NH₃ at 230-60° to prepare nitriles. The crude nitrile phase was separated from I, heated to 290°, and treated with NH₃ to give 417 g nitriles with amide content 0.05% and acid value 0.1. The yield of I was 42.9 g.

L6 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1979:186413 CAPLUS <<LOGINID::20080602>>

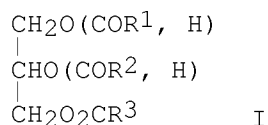
DN 90:186413

OREF 90:29609a,29612a

TI Fatty acid nitriles and glycerol from
 glycerides
 IN Billenstein, Siegfried; Kukla, Bruno; Staehler, Herbert
 PA Fed. Rep. Ger.
 SO Ger. Offen., 20 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	DE 2737607	A1	19790301	DE 1977-2737607	19770820
	ES 472553	A1	19790216	ES 1978-472553	19780814
	IN 150312	A1	19820911	IN 1978-CA889	19780814
	RO 77028	A1	19810622	RO 1978-94982	19780815
	EP 916	A1	19790307	EP 1978-100666	19780816
	EP 916	B1	19810520		
	R: BE, CH, DE, FR, GB, LU, NL, SE				
	DD 138311	A5	19791024	DD 1978-207321	19780816
	FI 7802516	A	19790221	FI 1978-2516	19780817
	FI 63961	B	19830531		
	FI 63961	C	19830912		
	JP 54041806	A	19790403	JP 1978-99578	19780817
	JP 62046530	B	19871002		
	DK 7803679	A	19790221	DK 1978-3679	19780818
	DK 159064	B	19900827		
	DK 159064	C	19910121		
	NO 7802821	A	19790221	NO 1978-2821	19780818
	NO 147271	B	19821129		
	NO 147271	C	19830316		
	BR 7805331	A	19790424	BR 1978-5331	19780818
	ZA 7804717	A	19790829	ZA 1978-4717	19780818
	AU 7839076	A	19800221	AU 1978-39076	19780818
	AU 519437	B2	19811203		
	AT 7806007	A	19800515	AT 1978-6007	19780818
	AT 359991	B	19801210		
	CS 202509	B2	19810130	CS 1978-5425	19780818
	IL 55385	A	19820228	IL 1978-55385	19780818
	HU 22921	A2	19820728	HU 1978-HO2097	19780818
	HU 180472	B	19830328		
	SU 971092	A3	19821030	SU 1978-2650552	19780818
	CA 1135722	A1	19821116	CA 1978-309619	19780818
	PL 119196	B1	19811231	PL 1978-209133	19780819
	US 4234509	A	19801118	US 1979-32753	19790424
PRAI	DE 1977-2737607	A	19770820		
	DE 1978-2813204	A	19780325		
	US 1978-933955	A2	19780815		

GI



AB Fatty acid nitriles R1(R2,R3)CN (R1, R2, R3,
 the same or different, = C3-23 saturated or unsatd. hydrocarbyl, optionally

OH-substituted) were prepared by treating glycerides I with NH₃ in the liquid phase in the presence of a catalyst, e.g., Pb, Zn, Cd, Fe, Ni, or Co salts of carboxylic or sulfonic acids. Thus, N₂, then NH₃ was passed through tallow and Me(CH₂)₁₁C₆H₄SO₃H zincate at 230-90° over 7 h to give 93.6% tallow fatty acid nitrile (containing 1.8% amide) and 80.2% glycerol.

L6 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1978:172255 CAPLUS <<LOGINID::20080602>>

DN 88:172255

OREF 88:27135a,27138a

TI Aliphatic monocarboxylic acid nitriles

IN Koranis, Jorgos; Krsnak, Frantisek

PA Czech.

SO Czech., 3 pp.

CODEN: CZXXA9

DT Patent

LA Czech

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 169169	B1	19760729	CS 1974-180	19740111
PRAI	CS 1974-180	A	19740111		

AB C6-22 acids and NH₃ were used to prepare nitriles containing small concns. of amides. Thus, lauric acid [143-07-7] and excess NH₃ were passed over an alumina catalyst at 390° to prepare Me(CH₂)₁₀CN [2437-25-4] containing 0.5-3.0% amide. Hydrogenation of the nitrile in liquid phase gave >95% primary amine [124-22-1]. Stearin and mixts. of coconut fatty acids were also used to prepare 82-96% primary amines.

L6 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1967:65132 CAPLUS <<LOGINID::20080602>>

DN 66:65132

OREF 66:12215a,12218a

TI Fatty acid nitriles

IN Potts, Ralph H.

PA Armour and Co.

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3299117		19670117	US 1966-544642	19641005

AB A multi-step method for the preparation of the title compds. is described. Into a reactor kept at 180° and 5 kg./cm.² were fed 1000 moles/hr. of a tallow fatty acid (mol. weight 273) and 2000 moles NH₃. The discharge product contained 15.8% free acid, 39.2% amide, and 45% nitrile. This mixture was fed into a reactor at 300° and 1.2 kg./cm.² with a NH₃ flow of 1 mole/hr. to give a product 4.4% free acid, 11% amide, and 84.6% nitrile. After passing this mixture through a reactor at 310° and 0 pressure with 0.5 mole/hr. NH₃, a product containing 1% free acid, 3.6% amide, and 95.4% nitrile was obtained. After vacuum distillation the material contained 0.25% free acid, 1.5% amide. A total of 3.5 moles NH₃ per mole I had been used. The three reactors were preferably filled with dehydration catalysts (Al₂O₃, SiO₂), but packing (Raschig rings) was also effective.

L6 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1966:103553 CAPLUS <<LOGINID::20080602>>

DN 64:103553
 OREF 64:19405b-c
 TI Secondary processes in the preparation of higher unsaturated aliphatic nitriles from fatty acids and ammonia by the liquid-phase method
 AU Tsanev, D.; Benbasat, N.
 SO Godishnik Nauchnoizsled. Inst. Khim. Prom. (1964), 3(2), 49-58
 From: Abstr. Bulgar. Sci. Lit., Chem. 7(2), 8-19 (1964).
 DT Journal
 LA Bulgarian
 AB The following reactions are investigated in the preparation of higher unsatd. aliphatic nitriles by the liquid-phase method: decarboxylation of the fatty acids to ketones, formation of secondary amides, and formation of oligomers. It is shown that the main by products of the process in question are the oligomers of the nitriles. This conclusion is supported by ir spectra. On the basis of this investigation the way to increase the yield of the primary nitriles is clarified.

L6 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1963:447927 CAPLUS <<LOGINID::20080602>>

DN 59:47927

OREF 59:8602d-e

TI Nitriles

IN Potts, Ralph H.

PA Armour & Co.

SO 11 pp.

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	FR 1320500		19630308	FR	
	GB 981123			GB	
PRAI	US		19610424		
AB	Fatty acids and fatty acid amides are converted to nitriles in a continuous process in a series of reactions in the liquid phase. Thus, a fatty acid and a mixture of acids and amides (recycled) are simultaneously introduced into a preheater, the mixture is heated at 170-80°, passed into a preactor containing a dehydration catalyst such as activated alumina, bauxite mineral, or silica gel, NH ₃ (1.5 moles NH ₃ /mole fatty acid) is heated and introduced into the reactor, and the reactor is pressured to approx. 7 kg./sq. cm. The amide obtained is passed into a preheater, then into another reactor containing a dehydration catalyst under 2.10-2.80 kg./sq. cm. and passed into a preheater where it is mixed with material obtained from the base of the reactor, and the resulting mixture is passed into another reactor under 0.35 1.05 kg./sq. cm. and heated at 300-20°. The mixture is then flash distilled to liberate NH ₃ , and the product distilled in the presence of an alkali such as CaCO ₃ or Na ₂ CO ₃ to give the nitriles.				

L6 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1963:428143 CAPLUS <<LOGINID::20080602>>

DN 59:28143

OREF 59:5018h,5019a-b

TI Nitrogen derivatives of long chain fatty acids. I. Synthesis of long chain aliphatic nitriles

AU Tsanev, D.; Benbasat, N.

SO Khim. i Ind. (Sofia) (1962), 34(6), 209-11

DT Journal

LA Unavailable

AB Nitriles can be prepared in the liquid phase by bubbling NH₃ through fatty acids at high temperature (with or without catalysts), in the vapor phase either

over a stationary dehydrating catalyst or in the boiling layer, and in a combination liquid-vapor phase where the fatty acids form the amides in the liquid phase, and the reaction products together with the H₂O of reaction and excess NH₃ are passed through a vertical convertor packed with Al₂O₃ as a vapor. Using only the liquid phase method, stearonitrile is produced optimally at 300°. Higher temps. cause a greater amount of side reactions. The oleonitrile is prepared at 290° due to the formation of fatty acid dimers. Excess NH₃ significantly accelerates nitrile formation. Up to 6% H₂O in the NH₃ does not interfere with the process. The process equipment should be 99.5% Al or acid-resistant steel, EYA 1-T.

L6 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1959:53857 CAPLUS <<LOGINID::20080602>>

DN 53:53857

OREF 53:9685h-i,9686a-b

TI Complex chromium salts for waterproofing

IN Vallette, P.; Tassel, E.

PA Compagnie francaise des matieres colorantes

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1110678		19560215	FR	19531105
AB	The complex Cr salts are obtained by treating, if desired, in the presence of a substance oxidizable by hexivalent Cr, a solution in an inert organic solvent of a compound containing an OH, O:, COOH, COOR, CONH ₂ , CN, or SH group, said solution containing Cr(OH) ₃ or an alkali metal or alkaline earth dichromate, with a gaseous hydrogen halide or with nitrous gases. Suitable organic substances include fatty or resin acids, their esters with mono- or polyhydric alcs., aldehydes, ketones, amides, or alkanolamides of fatty acids, esters of alkanolamines with fatty acids, fatty acid nitriles, phenols, or aliphatic mercaptans. The preferred solvents are halogenated hydrocarbons. Oxidizable substances include MeOH, EtOH, paraldehyde, glucose, and ethylene glycol chlorohydrin. These substances are necessary if the organic complexing agent is not oxidizable during the reaction. The reaction is exothermic and may keep a low-boiling solvent boiling. Usually the complex is soluble and the solution is filtered and evaporated. The residue can be used in a hydrophilic solvent which may replace the original solvent in azeotropic distillation. The products, especially with a chain of 12C atoms, are excellent waterproofing agents, especially for textiles. For example, stearic acid, Na ₂ Cr ₂ O ₇ , CCl ₄ , and EtOH were refluxed with passage of dry HCl. The product was dried and dissolved in boiling iso-PrOH, cooled, and filtered. Fabric was waterproofed with an aqueous solution of the complex Cr salt, urea, NaO ₂ CH, and HCO ₂ H.				

L6 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1955:39485 CAPLUS <<LOGINID::20080602>>

DN 49:39485

OREF 49:7572d-g

TI Fatty aldehydes. II. Synthesis of amides using lithium aluminum hydride

AU Kaufmann, H. P.; Kirschnek, H.

CS Deut. Inst. Fettforschung, Munster, Westfalen, Germany

SO Fette und Seifen (1953), 55, 851-4

CODEN: FTSEAK; ISSN: 0367-3278

DT Journal

LA Unavailable

OS CASREACT 49:39485

AB Reduction of fatty acid derivs. to the corresponding aldehydes (II) with LiAlH_4 in THF was investigated. From acid chlorides, only the alcs. could be obtained. Fatty acid nitriles yielded some II; thus, stearonitrile gave 25% I in 48 h. at -60° . Reduction of saturated or unsatd. amides or imino ether-HCl salts gave no II. Reduction of N-arylamides (III) was the best of the methods investigated. The following III were obtained by boiling the acid chlorides with the secondary amines in xylene (amine, acid, m.p. of III): carbazole, stearic acid, 91° ; phenothiazine, stearic acid, 86° ; Ph_2NH , stearic acid, 71° ; carbazole, oleic acid, 41° ; carbazole, elaidic acid, 72° . The phenothiazine derivs. are most useful since they are more soluble in THF and the resulting phenothiazine is insol. in petr. ether. The yields are generally about 90%. The following is a general method: 4.66 g. N-stearylphenothiazine (dried over P_2O_5) is dissolved in 30 mL. THF (distilled from LiAlH_4), 2.5 mL. M LiAlH_4 in Et_2O is added dropwise while cooling, and the solution is allowed to stand 3 h. at 0° with occasional shaking. A few drops EtOAc are added, the solution is decomposed with 100 mL. dilute HCl (0°) and 50 mL. Et_2O , the mixture is neutralized at once, the Et_2O layer is evaporated at low temperature in vacuo, and the residue is dissolved in cold petr. ether (only the aldehyde dissolves); yield 92%.

L6 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1950:25645 CAPLUS <<LOGINID::20080602>>

DN 44:25645

OREF 44:5038i,5039a

TI Armour's star

AU Potts, Ralph H.; McBride, Gordon W.

CS Armour & Co., Chicago, IL

SO Chem. Eng. (1950), 57, 124-7,172-5

DT Journal

LA Unavailable

AB Description and flowsheet of Armour's new plant at McCook, Ill., for chemical production from fats, oils, and fatty acids. Principal products are fatty acids, nitriles, amides, amines, and amine derivs.

L6 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1948:5872 CAPLUS <<LOGINID::20080602>>

DN 42:5872

OREF 42:1322c-f

TI Piperidine compounds

PA Soc. pour l'ind. chim. a Bale.

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 591992		19470904	GB 1944-11882	19440622

AB 4-Aryl-4-piperidinecarbonitriles and the corresponding esters, amides, and ketones are prepared by condensing an α -aryl γ -tert-amino fatty acid nitrile with a 1,2-alkylene halide in the presence of an acid-binding agent and then converting the CN group in the usual manner to esters, etc. α -Phenyl- γ -(benzylmethylamino)butyronitrile 52.8 g. is treated with powdered NaNH_2 10 in ether 200 in a N atmospheric, then cooled with ice

and

mixed with $(\text{CH}_2\text{Br})_2$ 40 parts. Stir 1 hr. at room temperature and 4-5 hrs. at 40°C . Upon neutralization 1-methyl-1-benzyl-4-phenyl-4-

cyanopiperidinium bromide, m. 245-60°, is obtained. Reduction with H and Pd black yields 1-methyl-4-phenyl-4-cyanopiperidine. Similarly 1,2-dimethyl-4-phenyl-4-cyanopiperidine, b0.7 107-10°, 1,2-dimethyl-4-phenyl-4-carbethoxypiperidine, b0.15 105-8°, 1-ethyl-4-phenyl-4-cyanopiperidine, b0.05 110-12°, and 1-methyl-4-(m-methoxyphenyl)-4-cyanopiperidine (I), b12 196-7°, m. 40°, are prepared I heated with caustic gave 1-methyl-4-(m-methoxyphenyl)-4-piperidinecarboxylic acid, m. 272-4°; Et ester b12 195-7°. Preps. are given for 1-methyl-4-(m-methoxyphenyl)-4-piperidinecarboxamide, m. 133-5°, 1-methyl-4-(m-hydroxyphenyl)-4-piperidyl Pr ketone, m. 153-4° (HCl salt of m-methoxyphenylanalogue, m. 125-7°), 1-methyl-4-(m-acetoxyphenyl)-4-piperidyl Pr ketone-HCl, m. 172-4°, 1-methyl-4-(o-methoxyphenyl)-4-cyanopiperidine, m. 98-9° (HBr salt, m. 262-4°), 1-methyl-1-benzyl-4-(2,3-dimethoxyphenyl)-4-cyanopiperidinium bromide, m. 232-33.5°, 1-ethyl-4-phenyl-4-piperidyl Et ketone, b0.1 100°, and 1-methyl-4-(m-hydroxyphenyl)-4-piperidyl Me ketone, m. 158-9°. Cf. C.A. 42, 225f.

L6 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1938:66987 CAPLUS <<LOGINID::20080602>>

DN 32:66987

OREF 32:9402f-h

TI Therapeutically active amidines

IN Miescher, Karl; Urech, Ernst

PA Soc. pour l'ind chim. a Bale

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2131141		19380927	US	
AB	Phenyloxy alkylene amidines unsubstituted in the phenyl nucleus and substituted in the amino group of the amidine group by alkyl, phenalkyl or alkyl amino alkyl, the alkyl radicals being of the lower aliphatic series, are produced by using as the parent material a phenyloxy fatty acid nitrile, amide or thioamide which is not substituted in the phenyl nucleus and converting this compound into an amidine substituted at the amidine N. Phenoxyethenyl-β-phenylphenylethylamidine-HCl m. 201-3° and is freely soluble in water. α - Phenoxybutenyldibutylamidine - HCl m. 117-118°. General mention is made of other similar compds.				

L6 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1938:28246 CAPLUS <<LOGINID::20080602>>

DN 32:28246

OREF 32:3910h-i,3911a-c

TI Therapeutically-active amidines

PA Soc. pour l'ind. chim. a Bale

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 476611		19371213	GB	
AB	These are prepared from phenoxy fatty acid nitriles, amides or thioamides that are substituted in the Ph nucleus or from quinolyloxy fatty acid nitriles, amides or thioamides in which the oxy-fatty acid nitrile, amide or thioamide residue is a substituent of the isocyclic ring by (1) converting				

the nitrile into its imido-ether and treating it with NH₃ or a primary or secondary amine, (2) heating the nitrile with a salt of NH₃ or of a primary or secondary amine, (3) converting the amide into its imido-chloride and treating it with NH₃ or a primary or secondary amine or (4) causing the thioamide in free or nascent form to react with NH₃ or a primary or secondary amine. Among examples, (1) 2-methoxyphenoxyethenylamidine is obtained when 2-methoxyphenoxyacetonitrile is treated in cold alc. solution with HCl or HBr and the resulting acetimido-ether caused to react with NH₃, (2) 8-quinolyloxyethenylamidine is prepared by introducing HCl into an alc. solution of 8-quinolyloxyacetonitrile and treating the resulting acetimido-ether with NH₃ and (3) 2-methoxyphenoxyacetamide is heated with PCl₅ in xylene and the imido-chloride formed heated with NHEt₂ to give 2-methoxyphenoxyethenyl-as-diethylamidine. In Brit. 476,612, Dec. 13, 1937, addition to 476,611, amidines are prepared by the processes of 476,611 from phenoxy fatty acid nitriles, amides or thioamides that are not substituted in the Ph nucleus. Thus, phenoxyethenyl-β-phenylethylamidine is prepared by treating phenoxyacetimido-ether, made from acetonitrile, alc. and HCl, with β-phenylethylamine.

L6 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1938:25795 CAPLUS <<LOGINID::20080602>>
 DN 32:25795
 OREF 32:3595h-i,3596a
 TI Fatty acid nitriles, amides and ketones for extreme-pressure lubricants
 AU Ralston, A. W.; Christensen, C. W.; Hoffman, E. J.; Selby, W.; Conquest, V.
 SO National Petroleum News (1936), 28(No. 50), 59-62
 CODEN: NPNEAL; ISSN: 0027-9889
 DT Journal
 LA Unavailable
 AB The preparation and lubricating properties of fatty acid nitriles, ketones, amides and thioamides are discussed. The nitriles are stable, readily prepared, very soluble in lubricants, noncorrosive and possess oiliness. Their polymerization produces substances analogous to heavy mineral oils, while cracking under pressure at 550°, gives lower nitriles and straight-chain hydrocarbons with pronounced penetrative properties. High-mol. aralkyl ketones are readily soluble in mineral oils and greases. Ketones containing the phenoxyphenyl radical, e. g., the C₁₇H₃₅ ketone, when added to mineral oils produce gels which liquefy under slight pressure. Owing to their limited solubility the amides are of little interest. Certain thioamides with marked polar properties and fair solubility were examined The Faville-Le Valley machine and the Stephens consistometer were used for assessing oiliness and load-carrying capacity.